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A comparison of community pharmacy methadone services between Dublin and Glasgow: (1) Extent of service provision in 1997/1998 and views of pharmacists on existing provision and future service developments

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Abstract

Objectives: To determine the extent of pharmacists' participation in methadone services, type of services provided, views on current service provision and suggestions for future service developments.

Methods and setting: An anonymous postal questionnaire was distributed to all community pharmacies in the greater Dublin area ($n=291$) and in Glasgow ($n=200$), excluding 12 pharmacies in each city that had participated in the pilot study.

Key findings: The response rates were 50% (146/291) and 56% (112/200) for Dublin and Glasgow respectively. Participation in methadone services was considerably higher in Glasgow (80%, 90/112, of respondents) than in Dublin (38%, 55/146) and the number of patients per pharmacy was higher. A majority of pharmacists participating in methadone services (76% in Dublin, 92% in Glasgow) felt they had a professional responsibility to provide such services. In both cities the most common grounds for lack of service provision were business reasons, including risk to staff or property and theft. Current non-participants identified increased demand for the service and improved security measures as two factors that may encourage their participation in the future.

Conclusion: Pharmacists in Dublin and Glasgow differed significantly in the extent and types of services provided. This may be because a structured scheme was in place in Glasgow but not in Dublin at the time of the study. Despite these differences in service provision, views were very similar in both cities.

INTRODUCTION

The misuse of drugs is a major health concern for many European cities, not least Dublin and Glasgow, which have the highest rates of injected heroin use in Europe. The number of heroin users has been estimated at 8,000-10,000 (0.8-1%) and 8,500 (0.9%) for Dublin and Glasgow respectively (Irish Ministerial Task Force, 1996; Frischer, Goldberg, Taylor, & Bloor, 1997). The use of methadone as a maintenance

treatment is supported by an extensive evidence base (Dole and Nyswander, 1965; Farrell et al., 1994; Ward, Hall, & Mattick, 1999). The supervised consumption of methadone within a community pharmacy under the direct supervision of a pharmacist is recognized as an effective means of avoiding overdose or illicit diversion of methadone and has demonstrated substantial benefits for patients (McBride, Ali, & Atkinson, 1994; Scott, Jay, Keith, Oliver, & Cassidy, 1998). However, despite this research, there exists a wide variation in the nature and extent of community pharmacy involvement in service provision between Dublin and Glasgow (Pharmaceutical Society of Ireland, 1996; Roberts, McNulty, Gruer, Scott, & Bryson, 1998).

An established and well-run scheme with tight controls had been in operation in Glasgow since May 1994 (Gruer et al., 1997; Roberts et al., 1998; Scott, Burnett, & McNulty, 1994; Scott et al., 1998). In 1994, 45% of all community pharmacists in Glasgow were either already supervising the consumption of methadone or were prepared to do so (Scott et al., 1994). In April 1995, the Glasgow Health Board began paying a small quarterly fee to community pharmacists who agreed to provide supervision, report every month on all methadone dispensing, undertake training (Mackie, 1996) and participate in audit. By April 1996, 59% of all the community pharmacies in Glasgow had agreed to supervise consumption of methadone on their premises (Gruer et al., 1997). This scheme included formal notification by the GP, pharmacists having the freedom to accept or reject new patients, prescriptions limited to 14 days supply and a central drug programme service to support and stabilize chaotic users, including shared-care protocols.

No equivalent scheme was in place in Dublin at the time of this study. Prescribing and dispensing of methadone in Dublin was primarily to drug users enrolled in specialized clinics. In limited cases, where it was judged appropriate, arrangements were made for patients stabilized on methadone to be transferred to the care of GPs and community pharmacists. In such cases, the prescribing clinic doctor or GP would normally contact pharmacies nominated by the patients to seek the pharmacists' participation and discuss the programme of treatment. A central record of such arrangements was maintained by the clinics. However, a GP could independently prescribe methadone to any patient, and this prescription could be dispensed in any pharmacy without notification of a central authority (Irish Misuse of Drugs Regulations, 1988). Inevitably, these arrangements led to some patients obtaining methadone from more than one source.

In 1996, the Pharmaceutical Society of Ireland published a policy document on drug abuse (Pharmaceutical Society of Ireland, 1996) to guide pharmacists involved in community-based methadone substitution. Following this publication it was decided to conduct a study in Ireland to determine the extent of pharmacy service provision and to obtain the views of community pharmacists to inform future service developments. The Glasgow scheme continued to develop; therefore, it was decided to compare Dublin and Glasgow owing to the similarly high rate of heroin use (Frischer et al., 1997; Irish Ministerial Task Force, 1996). This paper reports baseline methadone service provision together with the views of community pharmacists on their current and future involvement in such services in the two cities in 1997/1998. The findings of this study were used to inform future service provision in both cities. The methodology was repeated in 2002, and the second paper reports on the development of such services in both cities from baseline to 2002.

AIMS AND OBJECTIVES

The aims of this study were to determine the extent and nature of the provision of community pharmacy methadone services in Dublin and Glasgow and to obtain pharmacists' views to inform decisions on future service provision. Objectives included comparing the extent of participation by pharmacies in methadone-dispensing services, operational procedures, number of patients supported and types of services provided. In addition, pharmacists' views on current and future service developments were obtained. In particular, the study attempted to ascertain why pharmacists did or did not provide methadone services and, in cases where they did not provide a service, to determine what circumstances might lead them to do so in the future.

METHODS

In 1997, a postal questionnaire was developed subsequent to a review of the literature and discussions with pharmacists and researchers active in the area of drug misuse. The questionnaire was piloted in 12 community pharmacies in Dublin and 12 community pharmacies in Glasgow. Those pharmacies that participated in the pilot were randomly selected (using random number tables) from a list of pharmacies from both cities and therefore excluded from the main study. Following the pilot, the questionnaire was modified to distinguish between provision of methadone dispensing services for organic disease and opiate dependence, and participants were invited to restrict their responses to the latter.

The final questionnaire contained 45 questions arranged in four sections, namely demographics, provision of methadone services, practical aspects of methadone supply and future developments. Following support from the local pharmaceutical committees and the Health Authority, the questionnaire was sent by post (November 1997) to all pharmacies (excluding 12 pilot) in the greater Dublin area, identified from the telephone book ($n=291$) and all pharmacies (excluding 12 pilot) in Glasgow included in the National Health Service (NHS) Pharmaceutical List ($n=200$). The questionnaire was sent with a letter explaining the objectives of the study together with a postage paid envelope (with a local university address in each city) for the return of the questionnaire. The questionnaire was anonymous and no reminder was sent.

If the pharmacist indicated that they did not provide methadone services to drug users, they were asked to indicate which, if any, of 10 given reasons were their reason(s) for not providing such a service. These were: opposition to provision of services to drug users; methadone programmes are considered to be ineffective; concern that other customers would object; business reasons—risk to staff, property, theft; pharmacy would be isolated as the only one in the area providing such a service; pharmacy is too busy to provide an efficient service; premises are not suitable for supervision of consumption; no request for such a service; there is no perceived need for such a service in the area; it is company policy/owner's decision. An open-text area requesting "other" responses followed these 10 possible reasons. These pharmacists were also asked what, if anything, would lead them to provide such a service in the future, and an open-text area was provided for the response.

If the pharmacist indicated that they did provide methadone services to drug users, they were asked to indicate their reason(s) for providing such a service. Eight possible reasons were suggested: support of the provision of services to drug users; methadone programmes considered to be clinically effective; perceived professional

responsibility; business reasons—increases prescription volume; pharmacy is one of only a small number in the area providing such a service; requested by patients to provide a service; requested by GPs/clinics to provide a service; it is company policy/owner's decision. An open-text area for “other” responses followed these.

Data processing and analysis

A coding frame was devised and survey data were coded. The coded data were then entered into the computer package Microsoft Access™ for analysis. Chi-squared analysis of categorical variables was performed using Microsoft Excel™. Statistical significance was tested for at a 5% level.

RESULTS

The response rates for the questionnaires were 50% (146/291) and 56% (112/200) for Dublin and Glasgow respectively.

Demographics and extent of participation by pharmacies in methadone-dispensing services

The percentages of pharmacies in Dublin and Glasgow that provided methadone services for drug users were 38% (55/146) and 80% (90/112) respectively. Gender and employment status (pharmacy owner or employee) of all respondents are given in Table I. There was no statistically significant difference in gender or employment status between those respondents who did or did not provide methadone-dispensing services.

Table I. Category of pharmacist who completed the questionnaire vs. numbers who dispense methadone for drug users

Pharmacist category	Dublin		Glasgow	
	Total no. respondents	No. who dispense methadone for drug users	Total number of respondents	Number who dispense methadone for drug users
Male pharmacy owner	59 (40%)	25 (45%)	22 (20%)	19 (21%)
Female pharmacy owner	33 (23%)	8 (15%)	16 (14%)	10 (11%)
Male employee	25 (17%)	10 (18%)	24 (21%)	22 (24%)
Female employee	29 (20%)	12 (22%)	50 (45%)	39 (43%)
All pharmacists	146 (100%)	55 (100%)	112 (100%)	90 (100%)

Year of registration and participation of respondents in methadone service provision are provided in Table II. Generally, the spread of year of registration was similar for both groups. Dublin pharmacists who were registered for 20 years or longer were less likely to provide methadone services than Glasgow pharmacists in the same category ($\chi^2=21.3$, $df=1$, $p<0.005$).

Table II. Year of registration of pharmacist who completed the questionnaire vs. numbers who dispense methadone for drug users.

Year of registration	Dublin		Glasgow	
	Total no. respondents	No. who dispense methadone for drug users	Total no. respondents	No. who dispense methadone for drug users
1978 or before	40 (27%)	8 (15%) ^a	34 (30%)	25 (28%) ^a
1979-1988	43 (29%)	20 (36%)	34 (30%)	27 (30%)
1989-1998	52 (36%)	22 (40%)	39 (35%)	34 (38%)
Not declared	11 (8%)	5 (9%)	5 (5%)	4 (4%)
All pharmacists	146 (100%)	55 (100%)	112 (100%)	90 (100%)

^a $\chi^2=21.3$, $df=1$, $p<0.005$

Pharmacy type was defined as single, small multiple (2-10), multiple (11-20) or large multiple (≥ 21). The numbers of pharmacies in each category for the two cities are shown in Table III. With the exception of single pharmacies in Glasgow ($p<0.001$), there was no significant difference between categories in terms of percentages providing methadone services to drug users compared with those who did not provide such services.

Table III. Type of pharmacy and status with regard to provision of methadone services for drug users.

Type of pharmacy	Dublin		Glasgow	
	No. who dispense methadone for drug users	No. who don't dispense methadone for drug users	No. who dispense methadone for drug users	No. who don't dispense methadone for drug users
Single	32 (58%) ^a	63 (69%)	27 (30%) ^a	10 (45%)
Small multiple	20 (36%)	27 (30%)	34 (38%)	5 (23%)
Multiple	3 (6%)	0 (0%)	8 (9%)	1 (4.5%)
Large multiple	0 (0%)	1 (1%)	21 (23%)	5 (23%)
Not declared	0 (0%)	0 (0%)	0 (0%)	1 (4.5%)
Total	55 (100%)	91 (100%)	90 (100%)	22 (100%)

^asignificant difference, $p<0.001$

Pharmacy prescription volume related to extent (of methadone services) provision is shown in Figures 1 and 2 for Dublin and Glasgow respectively. The most common volume of prescriptions was 2,001-4,000 items per month, with this category representing 46% of respondents for both Dublin and Glasgow. A significant difference was noted for all three categories of prescription volume between Dublin and Glasgow in terms of provision of methadone services ($p=0.03$).

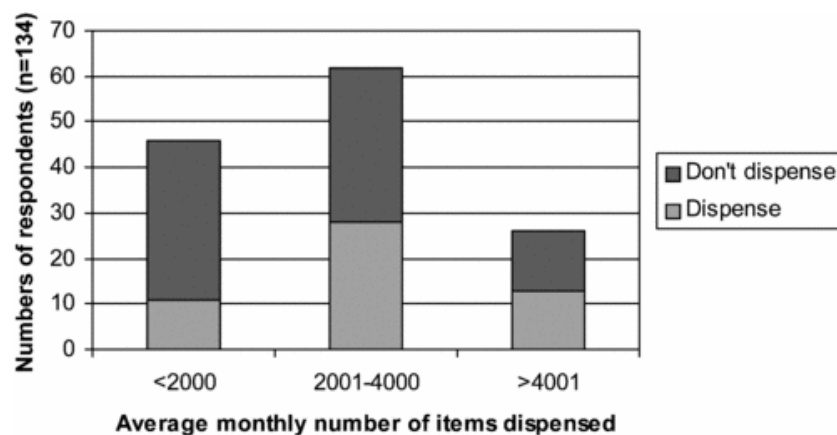


Figure 1. Pharmacy prescription volume and methadone service provision in Dublin

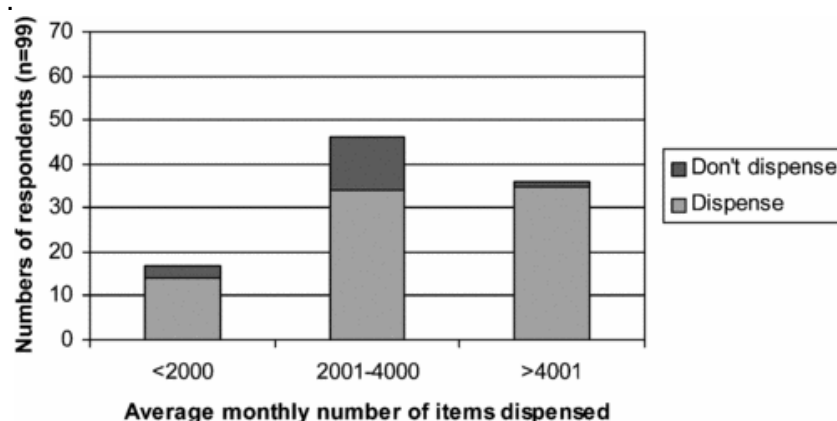


Figure 2. Pharmacy prescription volume and methadone service provision in Glasgow.

Views of non-providers on why they do not provide a methadone service

The top five reasons for not providing a methadone service to drug users are given in Table IV. Four of the five most frequent reasons were common to Dublin and Glasgow. The most common reason for not providing methadone services to drug users was “business reasons—risk to staff, property, theft”. Of respondents who did not provide a methadone service, 69% of Dublin respondents ($n=91$) and 55% of Glasgow respondents ($n=22$) indicated this as a reason. Some of the reasons for not providing a service given in the open-text area of the questionnaire are transcribed below:

This is a mainly middle-class area and, while we are aware that drug problems do exist locally, we believe local opposition to these services would be immense, as many addicts would come in to the area. (Dublin pharmacist)

The nature of their addiction makes them *untrustworthy, irrational, difficult* to deal with, governed by strange standards of behavior which are *not* acceptable. (Dublin pharmacist)

More control required to make scheme work. Proper prescribing control, patient registration, supervision, etc. required to reduce current substantial abuse of the scheme. (Dublin pharmacist)

Very quiet pharmacy in an affluent area therefore do not really have that type of customer. (Glasgow pharmacist)

Not enough training/counselling given and don't see any great end result—are we not just creating methadone junkies—letting them become dependent on *never* decreasing quantities. (Glasgow pharmacist)

The nearby pharmacy (same owner) provides methadone services. (Glasgow pharmacist)

Quiet area is beside dispensary. (Glasgow pharmacist)

Table IV. Most frequent reasons for not providing a methadone service for drug users.

Dublin (n=91)	Glasgow (n=22)
Business reasons, risk to staff, property, theft (69%)	Business reasons, risk to staff, property, theft (55%)
Concern that other customers would object (63%)	Concern that other customers would object (46%)
Premises are not suitable for supervision of consumption (54%)	No request for such a service (46%)
No request for such a service (47%)	Pharmacy is too busy to provide an efficient service (32%)
It is company policy/owner's decision (41%)	It is company policy/owner's decision (32%)

Views of non-providers on what circumstances, if any, would lead them to provide a methadone service in the future

Of the 91 Dublin pharmacies that did not provide a service, 82 provided comments on future service provision, of which 39 were positive and suggested that they may provide this service in the future. Of the 22 Glasgow pharmacists, 14 provided comments, of which seven were positive and indicated that they may provide this service in the future. Comments made on what might lead the pharmacist to provide a methadone service in the future were varied but could be broadly classified into four or five main categories, as listed in Tables Vi and Vii for Dublin and Glasgow respectively. It appears that some pharmacists would be willing to provide a methadone service to drug users if the demand for such a service increased. A number indicated a willingness to operate the service if it could be confined to the locality, dealing with local patients and doctors. The issue of operating within an established scheme was also highlighted, as was a need for increased security before they would get involved. However, a number of negative comments indicate that some pharmacists will not voluntarily offer this service irrespective of circumstances.

Table Vi. Sample of comments made by pharmacists in Dublin not providing a methadone service on what might lead them to provide such a service in the future (open text area results).

Category	Examples of comment
Demand/need for service	"Increased demand for such a service in the area."
Confine service to locality and cooperation within locality—GPs and pharmacists	"Discussion with local doctors/prescribers—if they requested us to provide this service for patients living in this area."
Established scheme	"A strictly controlled scheme where each patient has the support of a sponsor."
Increased security	"I would be in agreement if, and only if, security aspects for staff and public were not jeopardized."
Negative comments	"Nothing on earth."
"When practical measures are put in place to assist the victims of drug <i>abusers</i> ."	
"I don't think I can give an efficient and caring service which I think should be done in a clinic with pharmacist, doctor, counselling."	

Table Vii. Sample of comments made by pharmacists in Glasgow not providing a methadone service on what might lead them to provide such a service in the future (open text area results).

Category	Examples of comment
Demand/need for service	"Would do in future if demand/need arose."
"If asked would provide this service."	
Established scheme	"On a small scale with agreed appointment for supervision it might be acceptable."
Increased security	"Funding to provide another more suitable quiet area."
Negative comments	"Having provided such a service in the past to my great cost I would not provide such a service again."
"We don't foresee our doing this."	
"Only legal compulsion to do this service."	
"I can't think of anything that would convince me to do this."	
"A lot of persuasion if such a need arose."	

Views of current providers on why they provide a methadone service

Four of the top five reasons indicated for providing a methadone maintenance service were common to Dublin and Glasgow, as shown in Table VI. The top reason indicated by both Dublin (76%) and Glasgow (92%) pharmacists for providing a methadone service to drug users was "perceived professional responsibility to provide such a service". Some of the reasons for providing a service given in the open-text area are transcribed below:

No money could pay for doing this. A desire to remain alive while working in a pharmacy in an inner city area. (Dublin pharmacist)

I don't think methadone therapy works, but it indicates a desire to stop heroin. I feel I cannot supply and charge for treatment for one sick person and then reject another, i.e. the junkie. (Dublin pharmacist)

If a strong support unit—family is available—we can then deal with family and not with addict directly. (Dublin pharmacist)

We only supply to patients from our area. Local GP in our area does prescribe for people outside area. We refuse to dispense to these. (Dublin pharmacist)

Methadone programmes may not be clinically effective in that there aren't many patients reducing and becoming drug free. But it does give patients a "chance" and is reducing injecting. Best method available. (Glasgow pharmacist)

Table VI. Most frequent reasons for providing a methadone service for drug users.

Dublin (n=55)	Glasgow (n=90)
Perceived professional responsibility to provide such a service (76%)	Perceived professional responsibility to provide such a service (92%)
Requested by GPs/clinics to provide a service (73%)	Support of the provision of services to drug misusers (80%)
Support of the provision of services to drug misusers (67%)	Requested by GPs/clinics to provide a service (67%)
Requested by patients to provide a service (51%)	Methadone programmes considered to be clinically effective (66%)
It is company policy/owner's decision (38%)	Requested by patients to provide a service (57%)

Numbers of patients per pharmacy and types of services provided

The number of patients per pharmacy, for which methadone services were provided, is shown in Table VII. From these data it can be seen that the majority of pharmacies in Glasgow (60%) dealt with 10 or more patients. This is in contrast to the equivalent figure for Dublin (31%). Overall 47% of pharmacies in Dublin dealt with three patients or fewer.

Table VII. Number of patients per pharmacy receiving methadone services.

No. of patients per pharmacy receiving methadone services	Dublin	Glasgow
≤3	26 (47%)	16 (18%)
4-9	12 (22%)	18 (20%)
≥10	17 (31%)	54 (60%)
Not declared	0 (0%)	2 (2%)
Total	55 (100%)	90 (100%)

Methadone-dispensing services were categorized as 7 days daily supervised, 6 days daily supervised with take home for Sunday, daily take home, weekly take home and other (which included 5 days supervised with take home for Saturday and Sunday and two to three times weekly take home). Details of numbers of pharmacies that provided these services and numbers of patients dispensed methadone in each of these categories is given in Tables VIIIi and VIIIii for Dublin and Glasgow respectively. (Note that numbers exceed 100% owing to the fact that a particular pharmacy may provide more than one category of methadone dispensing.) The vast majority of patients in Dublin (74%) received their methadone in the form of weekly take-home supply. By contrast, the vast majority of patients in Glasgow (72%) received daily supervised consumption with a take-home dose for Sunday. In Dublin, nine (16%) pharmacies provided supervised dispensing of methadone on 6 or more days per week to a total of 151 (21%) patients. This is in contrast to the situation in Glasgow, where 76 (84%) pharmacies provided this same supervised service to a total of 1,191 (76%) patients.

Table VIIIi. Number of pharmacies and patients for each category of methadone dispensing in Dublin.

Category of methadone dispensing	No. pharmacies	No. patients				Total no. patients
	n=55	≤3	4-9	10-29	≥30	
Daily supervised	4	1	1	1	1	60 (8%)
Supervised daily, Sunday take home	7	5	0	0	2	91 (12%)
Daily take home	11	9	1	1	0	34 (5%)
2-3 times weekly take home	2	2	0	0	0	3 (1%)
Weekly take home	50	28	8	10	4	546 (74%)
Total	74	43	10	12	7	734 (100%)

Table VIIIii. Number of pharmacies and patients for each category of methadone dispensing in Glasgow.

Category of methadone dispensing	No. pharmacies	No. patients				Total no. patients
	n=90	≤3	4-9	10-29	≥30	
Daily supervised	10	6	1	3	0	58 (4%)
Supervised daily, Sunday take home	70	16	12	30	12	1133 (72%)
Daily take home	49	34	14	1	0	139 (9%)
Weekly take home	47	43	4	0	0	90 (6%)
Other ^a	16	10	1	2	3	157 (10%)
Total	192	109	32	36	15	1577 (100%)

^aFive days' supervised consumption with Saturday and Sunday take home or 2-3 times weekly take home.

Privacy

In Dublin, 12 (22%) pharmacies had a private area suitable for supervision of methadone consumption, while in Glasgow 42 (47%) pharmacies had such a facility. Of those that provided a private area, this same area was routinely used for general patient advice in 50% of pharmacies in Dublin and 62% of pharmacies in Glasgow.

Information requests from patients

Pharmacists in Glasgow had a higher number of requests for information from patients compared with Dublin (53% vs. 16%). In dealing with these requests, Glasgow pharmacists provided verbal information more often than Dublin pharmacists (100% vs. 60%) and were more likely to provide information leaflets to support this advice (27% vs. 8%). In addition, in response to requests for advice, 32% of Dublin pharmacists referred the patient back to the prescriber or clinic compared with 27% of Glasgow pharmacists.

Operational procedures

Written procedures/guidelines

In Glasgow, 71% of pharmacists had written procedures/guidelines for the provision of methadone services. This was significantly greater than the 40% of Dublin pharmacists who had written procedures/guidelines in place ($\chi^2=13.7$, $df=1$, $p<0.001$).

Formulations

The three most common formulations in use were a 1 mg/ml mixture (45%), a 1 mg/ml sugar-free mixture (36%) and a 2 mg/5 ml linctus (19%). The sugar-containing linctus formulation was dispensed by 69% of pharmacies in Dublin but by only 1% of pharmacies in Glasgow. In Glasgow, the 1 mg/ml sugar-containing mixture appeared to be prescribed more frequently than the sugar-free equivalent, with 93% of Glasgow pharmacies dispensing the 1 mg/ml sugar-containing mixture, whilst only 50% dispensed the sugar-free formulation. In Dublin, the reverse was seen, with 16% dispensing the sugar containing and 55% dispensing the sugar-free formulation.

Preparation and storage

The majority of pharmacists in Glasgow (90%) prepared doses in advance compared to a minority in Dublin (20%). Of those who prepared doses in advance, 56% in Glasgow and 64% in Dublin stored these doses in the safe or Controlled Drug (CD) cupboard prior to dispensing. The majority of pharmacists used standard dispensing containers (amber glass or plastic bottles). In addition, 23% of pharmacists in Glasgow and 10% in Dublin provided a cup/container for immediate consumption.

Record keeping

The percentage of pharmacies that recorded methadone dispensing on their patient medication records was 89% and 85% for Glasgow and Dublin respectively. In Dublin, 66% of pharmacies made entries in the CD register at the time of dispensing, 25% did so at the end of the day and 9% made CD entries on the day following supply. In Glasgow, the equivalent percentages were 44%, 50% and 6% respectively. Running stock balances in the CD register were maintained by 89% of Dublin pharmacists compared with 7% of Glasgow pharmacists.

Indemnity insurance

The vast majority of pharmacists in both Dublin (89%) and Glasgow (87%) did not know if their indemnity insurance covered them for supervising methadone consumption on the premises. Only 4% of Dublin pharmacists and 13% of Glasgow pharmacists were sure that their insurance covered this service.

Patient contracts

The percentage of pharmacies that had patient contracts was similar in Glasgow and Dublin (48%, 43/90, and 42%, 23/55, respectively). However, of those that had patient contracts, the percentage that had written contracts was lower in Glasgow than in Dublin (51%, 22/43, vs. 74%, 17/23, respectively).

Withholding methadone doses

A number of pharmacists indicated that they had withheld/refused a dose. Figures were 54% and 40% for Glasgow and Dublin respectively. Pharmacists were asked to state in what circumstances they would withhold a dose of methadone. Free-format text responses could be classified into seven main categories as detailed in Table IX.

Table IX. Number of respondents who would withhold a dose of methadone under particular circumstances.

Category	Dublin	Glasgow
Irregularity with respect to the prescription	16	7
Patient presenting for methadone at "incorrect" time (too early or too late)	13	20
Abusive/unacceptable behaviour	12	39
Patient appeared to be intoxicated (alcohol or other substance)	10	61
On advice of GP	4	11
Shoplifting	2	10
Other	9	3

In Dublin, the most likely reason for withholding a dose was in circumstances of irregularity with respect to the prescription. Comments made in this regard included: "suspected forgery/alteration"; "prescription written wrongly"; "script does not meet legal requirements"; "any alteration of prescription by patient"; "believed to be acquiring it from multiple sources".

This problem was less frequently identified in the Glasgow responses where it rated sixth in the seven categories identified. In Glasgow, the most likely reason for withholding a dose was intoxication with alcohol or other substances. Comments made included: "patient very intoxicated"; "illicit use of methadone"; "patient under the influence of other substances"; "only in very severe circumstances—taking it would endanger health"; "intoxication (although this is difficult to know if they use cannabis)"; "if someone was totally spaced out".

Providers' views on future service developments

Views with respect to improving available preparations were obtained—at the time of the study pharmacists from Dublin were twice as likely to want changes in strengths of available preparations, volume, packaging and form. Pharmacists were asked to identify the ideal formulation for the future. Greatest support was obtained for liquid formulations at 57% and 55% for Dublin and Glasgow respectively. Tablets were the second choice for both with dispersible formulations preferred. A few comments expressing a preference for an oral sustained release preparation and a 24-h patch were made.

Pharmacists were questioned as to whether they believed that those supervising methadone consumption should hold a supply of naloxone injection for use in an emergency and whether such pharmacists should be trained to administer naloxone in such circumstances. The responses to the questions regarding attitudes to the supply and administration of naloxone are given in Tables Xi and Xii for Dublin and Glasgow respectively.

Table Xi. Responses to naloxone questions from Dublin pharmacists providing methadone services.

Service provided	Total no. respondents	Hold supply of naloxone	Be trained to administer naloxone	Both hold a supply and be trained
Supervised	9	6 (67%)	7 (78%)	6 (67%)
Non-supervised	45	23 (51%)	23 (51%)	22 (49%)
Unknown	1	1 (100%)	0 (0%)	0 (0%)
Total	55	30 (55%)	30 (55%)	28 (51%)

Table Xii. Responses to naloxone questions from Glasgow pharmacists providing methadone services.

Service provided	Total no. respondents	Hold supply of naloxone	Be trained to administer naloxone	Both hold a supply and be trained
Supervised	76	26 (34%)	38 (50%)	26 (34%)
Non-supervised	8	3 (38%)	3 (38%)	2 (25%)
Unknown	6	2 (33%)	3 (50%)	2 (33%)
Total	90	31 (34%)	44 (49%)	30 (33%)

A higher percentage of Dublin pharmacists felt that pharmacists supervising methadone consumption should hold a supply of naloxone compared with Glasgow pharmacists (55% vs. 34%). In addition, 55% of Dublin pharmacists felt that pharmacists should be trained to administer naloxone compared with 49% of Glasgow pharmacists. Overall, 51% of Dublin pharmacists and 33% of Glasgow pharmacists felt that pharmacists providing supervised consumption should both hold stock and be trained to use it in an emergency.

DISCUSSION

The response rate to the questionnaire was low at 50% and 55% for Dublin and Glasgow respectively. However, this level may be considered reasonable for a lengthy questionnaire containing 45 items, distributed by post with no reminder. Overall, 68% (76/112) of Glasgow respondents supervised methadone consumption. This figure is the same as that reported by Roberts et al. in 1998 for the total number of pharmacies in Glasgow providing a supervised methadone service (Gruer et al., 1997). The structured methadone scheme in Glasgow is entirely funded by the NHS; therefore, we conclude that the findings are generalizable to Glasgow. By contrast, there was no equivalent state-funded scheme in Dublin; therefore, GPs were issuing private prescriptions at this time (Pharmaceutical Society of Ireland, 1996). Data on such private prescriptions are not collated centrally. Therefore, caution should be used in generalizing the Dublin findings.

The differences in the level of participation in the provision of methadone dispensing services between Dublin and Glasgow (38% vs. 80%) were significant but not surprising in light of the formal scheme in Glasgow and the absence of an equivalent scheme in Dublin (Irish Ministerial Task Force, 1996; Roberts et al., 1998) i.e., the different circumstances in which the two groups were operating. Gender and employment status (pharmacy owner or employee) were significantly different between respondents from Dublin and Glasgow. However, neither gender nor employment status significantly influenced whether methadone services were provided or not. Having considered year of registration, it was noticeable that Dublin pharmacists registered for 20 years or more were less involved in methadone dispensing services than any other group. The age profile is similar for pharmacists in Dublin and Glasgow and yet the same observation with respect to older pharmacists was not evident in Glasgow. The existence in Glasgow of a well-run, established scheme might be influencing older pharmacists to take part in the service.

The profile of pharmacy type (single, small multiple, multiple, large multiple) was significantly different between Dublin and Glasgow; however, pharmacy type did not significantly influence whether methadone services were provided or not, with the exception of single pharmacies in Glasgow, which were less likely to provide

methadone services. We are unable to explain this finding. By contrast, volume of prescriptions was shown to have an impact on service provision in Dublin with pharmacies dispensing fewer than 2,000 items per month being less likely to provide this service. This is difficult to explain but somewhat ironic in light of the fact that the group with the most time and the most to gain by extending their services was the one with least involvement with this patient group.

It was notable that Glasgow pharmacies had a tendency to provide a service for much larger numbers of patients than those in Dublin. This is despite the difference in service provision, with 84% (76/90) of service providers in Glasgow offering supervision on 6 or more days per week compared with only 16% (9/55) offering the same service in Dublin. It was surprising that pharmacists in Glasgow deal with such large numbers of patients given the time-consuming nature of supervision. However, this is probably attributable to the existence of a funded and well-managed programme in Glasgow, compared with the haphazard nature of the community pharmacy service in Dublin in November 1997.

Despite the difference in participation levels, there was close agreement between pharmacists in the two cities who did not provide methadone services to drug users as to why they did not do so. The most common reason in both cities was “business reasons—risk to staff, property, theft”, while the second most common reason was also related to business, in that pharmacists feared that “other customers would object”. This finding is in agreement with previous studies of community pharmacists in the UK, which have shown that, although the majority feels that the community pharmacist has a role to play with drug users, particularly in HIV prevention, they also have concerns over personal safety and the effect that drug users in their pharmacies may have on business (Harding, Smith, & Taylor, 1992; Glanz et al., 1998; Sheridan & Barber, 1997; Sheridan, Strang, Taylor, & Barber, 1997). These attitudes may be due to personal experience or awareness of anecdotal reports of violent or threatening incidents that have occurred in community pharmacies.

In 1996, Smith and Weidner conducted a survey of community pharmacists in the London area with a view to identifying the frequency of threatening and violent incidents experienced by community pharmacists (Smith & Weidner, 1996a, b). Fifty-one per cent of respondents reported that they or their staff had at some time been threatened with violence and 31% had been assaulted. Pharmacists described the perpetrators of 15% of incidents as “drug addicts” (Smith & Weidner, 1996a). Services to intravenous drug users, in particular the dispensing of controlled drugs and participation in needle exchange schemes, were clearly affected by security concerns of pharmacists (Smith & Weidner, 1996b). The results of the present study also support the recommendation of Sheridan and Barber (1997a) that further attention needs to be paid to the fears among some pharmacists that drug users in the pharmacy will adversely affect business.

The one reason put forward by Dublin pharmacists for not providing a methadone service, which was not reflected in Glasgow pharmacists' responses, was that “the premises (were) not suitable for supervision of consumption”. The level of supervised consumption of methadone in the community pharmacy was found to be much higher in Glasgow than in Dublin. In 1996, an area pharmacy specialist for drug misuse was appointed in Glasgow, with responsibilities including the coordination and facilitation of community pharmacists concerned with methadone dispensing and supervision (Gruer et al., 1997; Roberts et al., 1998). Under the programme in operation in Glasgow, pharmacists are encouraged to provide an area suitable for the supervision of methadone consumption by patients and many pharmacists have adapted their

premises in this manner. An objective of the new scheme established in Dublin, subsequent to the legislation that was introduced in 1998 (Irish Misuse of Drugs Regulations, 1998), is similarly to encourage pharmacists to become involved in the supervision of consumption of methadone and to provide facilities on their premises suitable for such an activity.

Some of the comments explaining why pharmacists do not provide a methadone-dispensing service to drug users or what might lead them to provide one in the future (Tables Vi and Vii) reflected a need, particularly in Dublin, to establish a more structured scheme with tighter controls on prescribing and dispensing practices. Such a scheme is now underway in Dublin subsequent to the introduction of new legislation, and it will be interesting to note the impact on pharmacists' attitudes to service provision.

A belief that methadone programmes are clinically effective did not rank among Dublin pharmacists' top five reasons for providing methadone services (only 35% of providers compared with 66% in Glasgow). Pharmacists' expectations of methadone programmes were not examined in detail in this study, but comments in the open-text areas of the questionnaire suggest that some pharmacists measured the worth of such programmes in terms of their success in detoxification and placed little value on maintaining patients free of street drugs in the absence of methadone dosage reduction. Further education or dissemination of information to highlight the additional benefits of methadone programmes might therefore be worthwhile. However, pharmacists in Dublin who did not participate in methadone-dispensing services did not rate "methadone programmes are considered to be ineffective" among their top five reasons for not providing methadone services to drug users. The fact that 76% of Dublin methadone service providers and 92% of Glasgow service providers perceived a "professional responsibility to provide such a service" is an encouraging indicator of the professionalism of pharmacists in both regions. Some of the comments provided in the open-text area might suggest other motives for involvement in such service provision, for example: "No money could pay you for doing this. A desire to remain alive while working in a pharmacy in an inner city area." This may imply that this participating Dublin pharmacist perceives that his satisfied service users provide a "protection service" to the pharmacy! Alternatively other pharmacists could hold this view as a reason for not getting involved. This study is unable to provide deeper insight into this aspect and further research is therefore required to obtain a better understanding of pharmacists' motives for providing such services.

The result of this 1997/1998 study was that overall 68% (76/112) of Glasgow respondents supervised methadone consumption. This figure is the same as that reported by Roberts et al. in 1998 for the total number of pharmacies in Glasgow providing a supervised methadone consumption service. This high rate of supervision was in contrast to the situation in Dublin, where pharmacists were not paid for providing the service, and only 6% (9/146) of respondents did so. Despite the high levels of supervised consumption in Glasgow, only 47% of pharmacies had a private area available for supervision. However, this did not seem to impact adversely on the level of verbal advice given by pharmacists in Glasgow, which was 100%, compared with 60% in Dublin.

Glasgow pharmacists had a high level of written procedures (70%), usually prepared doses in advance (90%) and maintained patient medication records for methadone (89%). These findings are perhaps not surprising given the high involvement of Glasgow pharmacists in an established programme. What is surprising, however, is

that only 23% provided a cup or container for consumption and only 48% had contracts with patients, of which as few as half were written contracts. Perhaps the most intriguing revelation is the fact that 87% did not know if they had professional indemnity insurance cover for supervised consumption, with 13% certain that they had cover. Dublin pharmacists had a much lower level of written procedures (40%) and rarely prepared doses in advance (20%), though they maintained high levels of patient medication records for methadone (85%) with 42% having contracts with patients, of which 78% were written. Like their Glasgow counterparts, a high proportion (89%) did not know if they had professional indemnity insurance cover for supervised consumption, with only 4% certain that they had cover and a worrying 7% reporting that they did not.

Glasgow pharmacists tended to withhold doses more often than Dublin pharmacists. The range of circumstances in which they would withhold a dose was similar for the two groups; however, the ranking varied considerably. Dublin pharmacists appeared to be most concerned with prescription irregularities and "incorrect" time of collection, whilst Glasgow pharmacists were more concerned with levels of intoxication and abusive behaviour. This could perhaps be explained by the stark differences in service provision between both cities, with Dublin pharmacists more likely to dispense weekly take home for fewer than three patients and Glasgow pharmacists providing daily, supervised prescriptions for more than 10 patients.

With respect to future service provision and possible formulation changes, pharmacists in Dublin appeared to be less satisfied with existing formulations. This probably reflected the use of the 2-mg/5-ml linctus, which was the most commonly used formulation in Dublin at the time of the study. This is no longer a problem, as the linctus can no longer be used for the treatment of opiate dependence under the new scheme in the Republic of Ireland. Subsequent to this study, a structured scheme was introduced in Dublin in late 1998 following the enactment of the Irish Misuse of Drugs Regulations (1998). These regulations made provision for the maintenance of a central treatment list of patients and the issuing of drug treatment cards, valid for a maximum period of 1 year. Restrictions on prescribing and dispensing practices and record-keeping requirements by the Irish Department of Health and Children and the pharmacy are also stipulated in the regulations.

Naloxone is the antidote of choice for the treatment of methadone overdose. Strang and colleagues. (Strang, Darke, Hall, Farrell, & Ali, 1996; Strang et al., 1999) have argued that an inadequate response to overdoses is a major cause of fatalities among heroin users. They argued that home-based supplies of naloxone would save lives because they might enable family or friends to effect emergency resuscitation in the critical period between the sudden onset of heroin overdose and eventual naloxone administration by a health care professional. Pharmacists' attitudes to holding a supply of naloxone for use in an emergency varied considerably between the two cities, with 55% support in Dublin and 34% in Glasgow. Support for training to administer naloxone was similar in both Dublin and Glasgow, at 55% and 49% respectively. It was notable that Dublin pharmacists had a more positive attitude towards this new service development, despite having a lower level of supervision (16% vs. 84% for Glasgow). Surprisingly fewer Glasgow pharmacists supported the stocking of naloxone for administration in an emergency than were prepared to undertake the necessary training to deliver this service (34% vs. 49%). This seems irrational in that, if training were provided to those who responded positively, then 14 trained pharmacists (16%) would have no drug to administer. This is an unexpected response, considering the risks involved and the legal implications of administering an injectable drug.

CONCLUSION

Significant differences were found and described in the provision of methadone-dispensing services between Dublin and Glasgow. Most notable were: pharmacists' participation levels, extent of supervised service provision and numbers of patients per pharmacy, all of which were higher in Glasgow, where there was a structured methadone scheme in place for a number of years prior to the study.

Despite these differences in service provision, when grouped as providers and non-providers of methadone services, views were very similar in both cities. This research lent support to the implementation of a structured methadone scheme in Dublin in October 1998 and informed changes to the established Glasgow scheme. The second paper (in preparation) in this series reports on the evolution of methadone services in both cities in the 5-year period to 2002.

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